Statement of ISO New England Inc.
Before the House Committee on Government Reform
Subcommittee on Energy and Resources

Oversight Hearing: "Can the US Electric Grid Take Another Hot Summer?"
Rayburn House Office Building, Washington, D.C.

July 12, 2006

Thank you Chairman Issa and Members of the Energy and Resources Subcommittee for the invitation to appear before you today. For the record, my name is Peter Brandien. I am Vice President of System Operations for ISO New England. ISO New England is the Regional Transmission Organization (RTO) for New England, regulated by the Federal Energy Regulatory Commission (FERC) and serves as the independent system operator for the New England bulk power system.

Prior to joining ISO New England in April 2004, I oversaw the bulk power system in Connecticut as Director of Transmission Operations for Northeast Utilities.

My remarks will address the challenges facing New England this summer and Southwest Connecticut in particular and actions being taken by the ISO and stakeholders to address long-term concerns.

First, I want to emphasize that the ISO plans and operates the bulk power system in New England – including Southwest Connecticut – to meet reliability standards and criteria established by the ISO, the Northeast Power Coordinating Council and the North American Electric Reliability Council.

I generally agree with the FERC's observations that there is inadequate capacity in Southwest Connecticut and that no significant additional capacity has been added since 2004, and that the transmission system is operating at its limit.[1]

Extended periods of extreme heat and humidity, which could push demand above record levels, as well as unplanned transmission or generation outages, would pose additional concerns for Southwest Connecticut. Southwest Connecticut is a load pocket, characterized by high demand for electricity and limited amounts of local generation and limited ability to import power from the rest of New England and New York.[2] Furthermore, several of the generating units in Southwest Connecticut are among the oldest units in New England and there are constraints on the ability to move power within Southwest Connecticut on the existing transmission system. Finally, wholesale electricity prices in Southwest Connecticut tend to be higher than the rest of New England primarily due to the limited infrastructure available to serve that area.

Summer Outlook

The ISO forecasts possible record-breaking demand for electricity in New England this summer. New England could exceed last year's record by 140 MW (0.5%) under normal weather conditions and by 1900 MW (7%) under more extreme weather conditions. On average, summer peak demand is growing at approximately 2% per year in New England, which is the equivalent of needing to add a large 500 MW generating unit each year primarily to meet growing demand for air conditioning. Summer peak demand is growing by approximately 2% per year in Connecticut and Southwest Connecticut as well.

[1] *2006 Summer Energy Market Assessment*, Federal Energy Regulatory Commission, May 18, 2006.
[2] The Southwest Connecticut area represents approximately 25 percent of the land area of Connecticut and 50 percent of the state's peak demand for electricity. It is comprised of 54 of the 169 towns in Connecticut.

We expect that the region will have adequate supplies for the summer, however, the region or local areas could experience tight supply conditions if generation is constrained or if hot and humid weather increases demand. In these cases, the ISO has a series of long-standing procedures to maintain reliability.

These include the activation of demand-response resources, purchasing power from neighboring Control Areas, and implementing voltage reductions. These procedures also include public appeals for conservation through the media. There are two categories of public appeals: The ISO may issue a "Power Watch" as an appeal for conservation or a "Power Warning" as an *urgent* appeal for conservation. We may also request that the region's governors reinforce the ISO's public appeals for conservation. These procedures help maintain operating reserves when supplies are tight and can reduce – but may not eliminate – the need for more serious actions by system operators.

As a last resort, and after all other operating procedures have been exhausted, the ISO may be required to institute controlled power outages to maintain the reliability of the bulk power system if the region's demand for electricity exceeds available supplies.

The ISO has developed a communications protocol to inform public officials throughout New England of the actions taken by the ISO to manage the bulk power system under these types of circumstances. The ISO tests this protocol regularly with public officials in preparation for actual system emergencies.

Southwest Connecticut Gap RFP

The ISO has identified a lack of resources to ensure reliability in Southwest Connecticut and in 2004 we secured emergency demand-response resources for that area through a competitive solicitation, or RFP. The RFP resulted in additional quick-start capacity

for the summer peak for the period 2004 to 2007. The RFP was designed to bridge a reliability gap until planned transmission reinforcements in Southwest Connecticut begin to come online.

As of July 3, 2006, there are more than 250 MW of resources in Southwest Connecticut that are capable of responding to dispatch instructions from the ISO to reduce demand on the bulk power system within 30 minutes. These resources in Southwest Connecticut account for more than half of the 30-minute demand response resources throughout New England. The demand-response resources in Southwest Connecticut have been activated on two occasions: 1.) On August 14, 2003 during the Northeast Blackout; and 2.) On July 27, 2005 when New England set a new record for summer peak electricity demand.

The ISO has also worked with New England stakeholders to develop longer-term solutions for Southwest Connecticut.

Transmission Projects

The State of Connecticut has approved major transmission reinforcements in Southwest Connecticut. Each of these projects has undergone a separate reliability review by the ISO to allow these projects to interconnect to the bulk power system. The Southwest Connecticut Reliability Project will extend the 345-kV network, which is the backbone of the New England bulk power system, into Southwest Connecticut in two phases. The first phase is expected to be in service by December 2006 and the second phase is expected to be in service by the end of 2009. While these projects will not be in place for this summer, they are critical to ensure reliability in Southwest Connecticut for the long-term.

One of the responsibilities delegated to the ISO by the FERC is to develop a regional system plan through an open stakeholder process that identifies the need for additional infrastructure and provides solutions to ensure a reliable power system for New England. We take that responsibility very seriously. The ISO identified the need for transmission reinforcements in Southwest Connecticut in our 2001 regional system plan. As you are aware, transmission projects require long lead times. The Southwest Connecticut Reliability Project, for example, is expected to be completed eight years after the filing of the initial siting application.

Market Enhancements

On June 15, 2006, the FERC approved a settlement agreement for a new Forward Capacity Market (FCM) in New England under which the ISO will conduct auctions beginning in 2008 for capacity resources to be delivered beginning in 2010. The new capacity market is the result of a lengthy stakeholder process, subsequent litigation and ultimately settlement discussions surrounding the best approach to meet New England's growing need for capacity.

On May 12, 2006, the FERC approved the ISO and NEPOOL's proposal, known as Phase II of the Ancillary Services Market project (ASM Phase II), to develop much-needed fast-start resources to provide reserves, particularly in locations that have relied on more costly and inflexible generating units to ensure reliable service. ISO is scheduled to implement this market in October 2006.

In conclusion, while there are significant operational challenges in Southwest Connecticut that will persist until planned infrastructure improvements are complete, ISO New England has procedures in place to operate the system reliably in New England and

Southwest Connecticut should emergency actions be required this summer. For the long-term, a combination of transmission projects and wholesale market improvements are intended to provide additional capacity in Southwest Connecticut to meet that area's growing demand for electricity.

Thank you. I would be pleased to answer any questions.